### CHEMICAL ENGINEERING

#### CHEMICAL ENGINEERING-BMBC

# College of Engineering, Architecture, and Technology

## 2025-2026 Biomedical/Biochemical Option

127 Semester Hours

Name: \_\_\_\_\_ Advisor:

Year 1 Year 2 18 hours 17 hours 16 hours 16 hours CHEM 1515 CHEM 3053 CHEM 1314 CHEM 3153 ENGL1113. Chemistry II Chemistry I Organic Organic Chemistry I Chemistry II 2. 6 hours designated (H) and 3 CHE 2581 **Required Prerequisites UNIV 1111** HIST 1103, 1483 CHEM 3112 or 1493 CHE Sophomore First Year Organic (May be satisfied by course Seminar Seminar American History Chemistry Lab credit or placement exam) MATH 1513 MATH 2144 MATH 2153 MATH 2163 MATH 1813 MATH 2233 2033). College Algebra Calculus I Calculus II Calculus III Differential Preparation for Calculus Equations ENGR 1412 PHYS 2014 CHE 2033 CHE 2023 Intro to CHEN Engr Computer Univ. Physics I ntro to Che **Thermodynamics** Process Eng Programming ENGL 1213 ENGL 1113 ENSC 2113 **ENSC 3233** Composition I Composition II Statics Fluid Mechanics BIOL 1111 & 1113 FNSC 2613 ENGR 2421 Eng Data Acq Introductory Bio Intro to Electrical Controls Lab and Lab Science NOTE: This flow chart is for planning purposes only. Official degree requirements can be found in the

1. If a grade of "C" is earned in ENGL 1113, then ENGL 1213 is also required before year 3 in the program. ENGL 3323 may be substituted for ENGL 1213 if AP Exam credit or a grade of 'A' or 'B' is earned in

**Oklahoma State University** 

hours designated (S). One course designated (D) and One course designated (G). (D): \_\_\_\_\_

#### 3. FALL ONLY COURSE

- 4. MATH 2233 or 3263 (may be taken concurrently with CHE
- 5. The combination of CHEM 3153 and 3112 may be substituted for the combination of BIOC 3653 and 3723.
- 6. SPRING ONLY COURSE.

Academic Catalog 2025-2026. (catalog.okstate.edu)

Completion with a grade of "C" or better.

General Education Courses

Degree Requirements

Upper Level CHE Courses

## Requirements for (CHEN) Chemical Engineering

Students must meet the following requirements to take 3000 level CHE courses:

Complete at least 60 college level semester credit hours (SCH).

12 SCH must be from OSU, 9 of which must be STEM courses (UNIV1111 is not considered STEM).

Completion with a "C" or better in all green courses: MATH 2144, 2153, 2163, 2233; PHYS 2014; CHEM 1314, 1515, 3053, and (3153 & 3112) or (BIOC 3653 & 3723); ENSC 3233; CHE 2023, 2033, 2581; ENGR 1412; and ENGL 1113 (if a "C" is earned in ENGL 1113, then ENGL 1213 is also required). All courses listed must be completed PRIOR to beginning Year 3 courses.

Students must meet the following requirements to advance to the next level of courses:

A "C" or better in CHE 3013, 3113, 3123, 3333, 3473, 3543, 4002; ENSC 2613, 3231; ENGR 2421.

Students must meet the following requirements for graduation:

A 2.0 GPA average in all CHE, CHEM, ENGR, and ENSC courses.

- 7. BAE 3113, 4413; BIOC 3223, 3653, 3713, 3723, 4113, 5824; BIOL 1604, 3023; CHE 4283, 4293, 5283, 5293; MICR 2123+2132, 3033. \*Cannot use both (ANSI 3423+BIOL 3023) or (BIOC 3653+3713).
- 8. Students may choose from the following electives: CHE 3202 + 3211, 4073, 4133, 4283, 4293, 4343, 4323, 4493, 4523, 4533, 4543, 4603, 4753, 4773.

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Year 4 Year 3 16 hours 14 hours 17 hours 13 hours **Prerequisites** CHE 3013 CHE 4002 CHE 4112 CHE 4843 Rate Operations Chemical Eng Chem Process Chemical Eng ab II Instr/Control Completion of all green courses with a "C" or better. CHE 3473 CHE 4124 CHE 4224 CHE 3113 Chemical Eng Chemical Eng Chemical Eng Rate Operations I **Thermodynamics** Design I Design II CHE 3333 CHE 3123 CHE 4581 Advanced CHE Elective ntro to Transport Chemical CHE Senior 8 3-hours Phenomena Reaction Eng Seminar CHE 3581 Adv Bioscience Gen Ed Course Gen Ed Course Flective 3-hours CHE Junior 3-hours (H) (2)3-hours (SG) Seminar CHE 3543 **ENSC 3313** Adv Bioscience POLS 1113 Elective Intro To Chem Materials Science American See Course Catalog 3-hours Process Analytics Government for specific course prerequisites **FNSC 3231** Gen Ed Course 3-hours (DH) Fluids & Hvdraulics Lab

Updated 05.16.2025

Completion with a grade of "C" or better.

General Education Courses

Degree Requirements

Upper Level CHE Courses